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ABSTRACT

The South Bronx High School Bilingual Basic Skills Program offered instruction in English as a Second Language, English reading, native language arts, and content areas (in Spanish) to 360 ninth and tenth graders. The primary goal of the program (in its first year of operation) was to mainstream bilingual students with their English speaking peers. Additional program components included curriculum development, staff development, parent and community participation, and supportive services. The program was evaluated using norm and criterion referenced test data, school records, and evaluator observations. Findings indicated that the program was implemented as proposed: (1) ten students were judged to have achieved a level of English competence so they no longer needed special services, (2) ninth and tenth graders made significant gains in English reading, (3) an average of .5 to .6 objectives were mastered per month in English as a Second Language classes, (4) most students passed tests in Spanish language arts and in the content areas, (5) students exhibited gains in math when tested with norm-referenced instruments, but most failed teacher-made tests, and (6) program participants surpassed the school attendance rates. Recommendations for future program implementations are included. (MK)

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Final Evaluation Report

South Bronx High School
Bilingual Program

1978-1979

ESEA Title VII

Project 5004-97641

Chapter 720

Project 5008-98451

NEW YORK CITY BOARD OF EDUCATION

OFFICE OF EDUCATIONAL EVALUATION

Dr. Alan S. Blumner

Director (Acting)

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EDUCATION & WELFARE
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DECEMBER 1979

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BILINGUAL BASIC SKILLS PROGRAM

SOUTH BRONX HIGH SCHOOL

Project Numbers: ESEA Title VII -- 5004-97641
Chapter 720 -- 5008-98451

Location: 701 St. Ann's Ave., Bronx, N.Y. 10455
Year of Operation: 1978-79, First Year of funding
Target Language: Spanish
Number of Participants: 360 Hispanic Students
School Principal: Sonia Rivera
Project Director: Nadya E. Williams

Context

The South Bronx is an area isolated physically, culturally and economically. The immediate environs of South Bronx High School are characterized by vacant lots, abandoned buildings, and aging tenements, characteristics which have implications for after-school activities and parental involvement, since most individuals fear to travel the area after dark.

South Bronx High School is located within the boundaries of Community School District 7 in the South Bronx. Within this community approximately half of the population is of Hispanic origin. Their children attend the schools of CSD 7, which, until the opening of South Bronx High School in 1977, did not geographically include an academic high school. Sixty-five percent of all District 7 students enrolled in high schools drop out before completing the four years. For Puerto Rican students the figure is close to three fourths (or 74%). Forty-three percent of all children under 18 years of age in District 7 are below the poverty level. For Puerto Rican Children the figure is 53%. In the same geographical area the unemployment

rate for persons between 16 and 21 years of age is 35%, as contrasted with a general city-wide figure of 12% for persons in the same age group.

South Bronx High School is a new school housed in a rehabilitated school building. It was established in September 1977. Following a vertical expansion mode, the school began with a ninth grade population of 280 students, of whom 130 were eligible for Consent Decree programs as determined by the administration of the Language Assessment Battery, teacher recommendation and parental request. During this year a bilingual program was begun with tax levy funds.

During 1978-79 school year (the second year of the school) the total enrollment of the school was 657 students in ninth and tenth grades. Of these students approximately 457 are Hispanics, with the remainder being primarily Black. Of the Hispanic population, 100% are estimated to be either monolingual speakers of Spanish or users of both languages.

Program Description

Introduction

During the first year of the program, 1978-79, approximately 360 Spanish background students were served in grades nine and ten. These students received varying configurations of courses, both in the bilingual program and the mainstream program, depending on their language and achievement levels. In order to understand the complexity of the program, it is necessary to be aware of the characteristics of the population being served; students ranged from foreign born individuals with little educational history in their native language and virtually no knowledge of English, to individuals who were born in the United States, are speakers of English and Spanish, but have developed proficiency in neither language. In order to meet the needs of such a complex population, South Bronx High School has developed a well articulated English

language program supported by instruction in the native language in content areas as well as the development of Spanish language skills. The program espouses as its main goal the development of English skills and the transitioning of students to the mainstream English Language Program.

Personnel/Funding Sources

The personnel providing services to the bilingual students come from several funding sources. Four main sources have been identified in this program: Title 1, Chapter 720, Tax Levy and Title VII. The following table provides a breakdown of the different funding sources and the positions funded by each.

TABLE I

Personnel Serving Bilingual Students, by Funding Source

Funding Source	Total Personnel	Instructional Personnel	Non-Instructional Personnel
Title I	2	1 ESL Teacher 1 Paraprofessional	- -
Chapter 720	4	1 NLA Teacher 1 Science Teacher 1 Social Studies Teacher 1 Paraprofessional	- - - -
Tax Levy	9	1 Math Teacher 3 Spanish L.A. Teachers 1 ESL Teacher 3 Reading (RSK) Teachers 1 Social Studies Teacher	- - - - -
Title VII	7	2 Paraprofessional 1 Paraprofessional -	1 Project Director 1 Grade Advisor 2 Curriculum Specialists

The instructional component of the bilingual program is funded principally by Title I, Chapter 720 and Tax Levy, while the non-instructional component is funded by Title VII in its majority. Title VII also funds 3 paraprofessionals in the instructional component.

The bilingual staff, according to their funding source, appears in the next two tables. Table II depicts the instructional component and Table III the non-instructional component.

TABLE II

Bilingual Instructional Staff by Funding Source

Instructional Component	Funding Source	Number of classes	Number of Personnel Teachers	Paras
ESL	Title I		1	1
	Title VII	10 (English)	0	2
	Tax Levy		1	0
Reading (Eng.)	Tax Levy	10 (English)	3	0
Native Lang.	Tax Levy		3	0
	Chapter 720	12 (Spanish)	1	1
Math	Tax Levy		1	0
	Title VII	5 (Spanish)	0	1
Social Studies	Tax Levy	3 (Bilingual)	1	0
	Chapter 720	4 (Spanish)	1	0
Science	Chapter 720	5 (Spanish)	1	0

TABLE III

Bilingual Non-Instructional Staff by Funding Source

Component	Funding Source	Personnel Providing Svcs.
Curriculum/Staff Development	Title VII	2
Counseling/parental Involvement	Title VII	1
Administration/ Supervision	Title VII	1

Table III depicts the non-instructional personnel serving the South Bronx High School bilingual students. Each of the tables provides different types of information. Together they show the complexity of the funding configurations which were needed to operate the bilingual program.

The Instructional Program

To serve the needs of approximately 360 students in grades nine and ten, whose limited English language proficiency prevents them from fully participating effectively in the English monolingual educational process, the South Bronx High School bilingual program provided instruction in the content areas in Spanish. In addition, students received instruction in English as a Second Language, English Reading, and Spanish Language Arts (Native Language Arts). Students in the program received instruction in bilingual and mainstream classes.

The different Courses/Programs offered to students in the bilingual program have been summarized in Tables IV, V, and VI. Tables IV and V refer to students in the bilingual sequence; i.e., students receiving English as a Second Language. The ESL and Reading classes are taught in English, while the rest of the classes are taught in Spanish. Each language is used 100% of the time.

TABLE IV

Classes Taught in the Bilingual Program Including Class Register, Language of Instruction, and Duration

Subject	Class Register	Language of Instruction	Minutes Per Day
ESL (Begin.)*	45	English	80/120
ESL (Intermediate)*	30	English	80/120
ESL (Adv.)*	37	English	80
English/Reading	200	English	80
Math	132	Spanish	40
Social Studies	132	Spanish	40
Science	132	Spanish	40
Spanish Language Arts	360	Spanish	40

* SEE TABLE V

The English language development component is the most complex and principal feature of the program. Reflecting the wide range of English language skills of the students, the program provides an English language sequence through which the students are expected to progress in order to be eligible for the mainstream program.

The sequence follows:

1. Beginning ESL
2. Intermediate ESL
3. Advanced ESL
4. English Reading Laboratory (for students below 7th grade reading level)
5. Remedial Reading Classes (for students above 7th grade level, but below actual grade level)
6. English Reading (on level)

Each ESL level is divided into a beginning and an advanced group. Students receive varying configurations of English instruction with some students receiving two sessions of ESL and session of English reading daily. Each student receives at least 80 minutes of English language instruction daily, and some students receive 120 minutes. Table V summarizes the class configurations for students enrolled in the ESL sequence.

TABLE V

English Program for Spanish Dominant Students in Complete Bilingual Program

(N = 132)

Subject	ESL Level	ESL Periods	Reading Class*	Minutes Per Day
ESL 1	Beg.	2	0	80
	Adv.	2	1	120
ESL	Beg.	2	0	80
	Adv.	2	1	120
ESL	Beg.	1	1	80
	Adv.	1	1	80

*RSK or Reading Lab, depending on level

In addition to participating in bilingual program classes, students participate in mainstream classes. Because of flexible scheduling at the High School level students are placed in classes where it is judged their English language compentence will provide them with equal access to education. Students are initially placed in classes where the use of English is minimal (such as physical education), and, as their English language competence increases, are placed in mainstream classes where the use of English is more demanding. This incremental exposure to English language classes creates a situation which may be characterized as "evolving" into the mainstream program, as opposed to a sharp transition at a given point. Students are placed in mainstream classes based on their achievement test performance, teacher recommendation and guidance counselor concurrence. Table VI presents the mainstream classes in which students in the bilingual program are participating.

TABLE VI

Mainstream Classes with Bilingual Students by Class Register and Duration

Subject	# of Students	Minutes Per Day
Physical Ed. (Dance)	360	40
Music	54	40
Art	36	40
Industrial Arts	36	40
English (RSK/LAB)	200	40
Math	200	40
Science	200	40
Typing	18	40

Incremental exposure to mainstream classes eventually results in the students being placed solely in the English school program. During 1978-79, the first year of the program, 10 students were judged to have achieved a level of English language competence where they were no longer in need of special assistance by the program. This decision was based each student's interview with a guidance counselor, parental and or student request/concurrence, and performance on achievement tests, such as the Language Assessment Battery, Criterion Referenced English Syntax Test (CREST) and the California Achievement Test (CAT).

Curriculum Development

Students participating in mainstream classes followed the curriculum and materials intended for English monolingual students. The ESL classes used the city-wide ESL curricular materials. For classes conducted in Spanish in Mathematics, Science and Social Studies, materials were largely lacking and had to be translated or developed by the project.

The Mathematics courses in Spanish followed the New York State mandated curriculum with materials translated by the staff. Social Studies courses in Spanish used a combination of project developed materials and commercially available Spanish texts. The course "Pluralism is America" used materials developed by the curriculum specialist and the Social Studies courses such as "Urban World History", using teacher-developed materials, and "Economics", using English textbooks. During 1979-80 school year the program is plann ng on adding a Latin American Studies course.

In Science the program offered the following courses: (a) "Health Science", used mandated and project developed curriculum as well as materials from the Aguila Volante Series. Students also participated in field visits to hospitals.

(b) "General Science" followed the mandated curriculum with project translated materials. (c) "Biology" followed the state mandated curriculum and used Biologia Moderna published by Cupiero. (d) In addition, students participated in "Botany" classes conducted in English.

Materials on the folklore of the countries that are the heritage of the students were also included in the curriculum. Examples of these are Poemas Dominicanos de Protesta and Vocabulario de Dominicanismos.

Staff Development

Limited resources were available for staff development ($600 from ESEA Title VII). Project staff participated in the following activities during the 1978-79 school year:

1. University courses: Four teachers attended institutions of higher education at their own expense. The project director worked toward certification in administration. Three paraprofessionals attended Brooklyn or Lehann Colleges, one working towards a B.A. degree and two attending graduate programs. The paraprofessionals' tuition was financed by the United Federation of Teachers (UFT).
2. Meetings: The bilingual staff met regularly for curriculum development and feedback among themselves. These meetings were attended by 3 teachers and 4 paras.
3. Conferences: The 2 curriculum specialists and the project director attended a lecture series at SABE. The series dealt with cultural pluralism. They also attended meetings at the center for Bilingual Education of the New York Board of Education.

During 1979-80 school year, the bilingual program intends to participate with the Bilingual Teacher Corps program for staff development purposes. The areas planned to be covered include guidance services for bilingual students, business education and linguistics.

Parent and Community Participation

The following activities are indicators of the nature and extent of parent/community involvement/services of the program:

1. Parent/Community Advisory Committee: A seven member Advisory Committee functioned throughout the year. The Committee was composed of six parents of students enrolled in the program and one community member who is not a parent. The participants were members of the School's Bilingual PTA who volunteered to be on the committee and were approved by the PTA. The Committee met once a month with the school principal and project director. They advised on project-related issues, including the project proposal, and helped with school events such as cultural activities and luncheons.
2. Parent Education: The bilingual program as such does not provide a parent education program. However, three parents of participating students attended high school equivalency classes at I.S. 184.
3. Other Activities: The Bilingual PTA and program parents co-sponsored a Talent Night during Pan American Week in which 40 parents of program students participated. Approximately 25 parents also participated during Open School Week.

The bilingual program has provided additional services to parents of participating students. For example, the program has been a resource for parents in dealing with their medical problems, including referrals for medical examinations. In addition, the program has advised parents on how to deal with landlord problems and social security benefits. The program has also communicated with parents through one newsletter and flyers informing parents of school events.

The project director has identified the following factors as being instrumental in adversely affecting parental participation:

1. Parents are afraid to visit the school at night because the area is relatively desolate and crime is a problem.
2. Inclement weather during the Winter affects attendance at scheduled functions. Participation increases during the Spring.
3. While visiting the high school, child-care arrangements for younger children are lacking.
4. "Novelas" (Spanish Soap Operas) provide competition during after-school hours.
5. Competing work schedules are prevalent.

In order to counteract these factors the program has attempted to hold meetings on Saturdays or between 10:00 A.M. and 2:00 P.M. In addition, home visits are made when a specific problem arises with an individual student.

Supportive Services

1. Home visits: Whenever specific problems arose with individual students the guidance counselor or one of the bilingual teachers visited the student's home.
2. Career Education: A Career Day was organized by the guidance counselor and the bilingual program staff. Emphasis was placed on opportunities available after high school, particularly for bilingual students.
3. Individual Guidance: Guidance services were provided by the guidance counselor and grade advisor. Among the services provided were class programming/scheduling, career guidance and assistance with resolution of personal problems. Group guidance is planned for 1979-80 school year.

Additional Indicators of Program Effect

The following information is provided as additional indicators of program effect. In some ways it is indicative of the attitudinal environment which is created or enhanced by the program, and of student response to it. It may help in further judging the program's worthiness.

1. Aspira Club: 20 to 25 program students participated in the club. Its main functions included cultural activities, career guidance and job placement, and participation in College Days. Among the activities was a trip to the play Zoot Suit.
2. Jazz Band: 15 program students participated in a jazz band.
3. Sports: Program students also participated in school sports. The baseball team, for example, was composed primarily of program students. Other activities included track and the girls' softball team. Approximately half of the school cheerleaders were program students.
4. Cultural Activities: Program students also participated in cultural activities such as Talent Night and Dominican Independence Day activities. Approximately 30 students and five parents, paid by ESEA VII, went to see the play Simpson Street presented by the Puerto Rican Traveling Theater. This was particularly significant because many of those attending had never seen a live performance before.
5. Drop-Outs. Two students dropped out of school. The main reason for their withdrawal was that they were too old for their grade level.
6. Suspensions: No program students were suspended during the school year.

Findings

The following section presents the assessment procedures and the results of the testing.

Assessment Procedures. Students were assessed in English language development, Spanish language development, Mathematics, Social Studies and Science. In addition, information was collected on the students' attendance rate. The following are the areas assessed and instruments used:

English as a Second Language	--	Criterion Referenced English Syntax Test (CREST)
Reading in English	--	New York City Reading Test
Reading in English	--	Teacher-made tests
Mathematics	--	New York City Mathematics Test
	--	Teacher-made tests
Science	--	Teacher-made tests
Attendance	--	School and program records

The following analyses were performed:

a) On pre-post standardized tests in reading and mathematics in English correllated tests were performed. This analysis demonstrates whether there is a significant difference between mean raw scores generated at two points in time for students with matched pre-post scores. It does not represent an estimate of how students would have done in the absence of the program. No such estimate could be made because of the inapplicability of the norms for this population and the unavailability of an appropriate comparison group.

b) On the Criterion Referenced English Syntax Test (CREST) information is provided on the number of objectives attempted and mastered, the percentage of objectives mastered versus those attempted, and the number of objectives mastered per month of treatment. Information is also provided on student performance on the various test levels.

c) On teacher-made criterion referenced tests the results are presented in terms of the number and percent of students achieving the criterion levels set for the program.

Results

The following section reports the results of the assessment:

TABLE VII

English Reading Performance
on the New York City Reading Test Reporting
Significance of Mean Total Raw Score Differences Between
Initial and Final Test Scores for Students with Full Instructional Treatment

	No.	Initial Mean	Initial S.D.	Final Mean	Final S.D.	Mean Diff.	Corr. (Init. Final)	SEmd	t	p
Grade										
9th	90	42.27	17.36	48.09	16.82	5.82	.572	1.667	3.491	.01
10th	56	35.27	12.30	42.46	10.07	7.19	.682	1.222	5.884	.01

As can be seen from the above table, there was a statistically significant gain in English reading achievement from initial to final testing. The mean gain from initial to final testing was six and seven points respectively for the ninth and tenth grades. The initial achievement was 42 for the ninth grade and 35 for the 10th grade. At final test time the achievement was 48 at the 9th grade and 42 at the tenth grade. It should be noted that the correlation coefficients between initial and final testing are .57 and .68 for ninth and tenth grades respectively. These correlations are lower than one would expect in a test/retest situation where the same form of the test is applied. This information suggests that the reliability of the test is questionable when applied to this population, or at least for a subgroup of this population.

TABLE VIII

English as a Second Language

for Spanish Language Students

Results of the Criterion Referenced English Syntax Test (CREST)
Reporting the Number of Objectives Mastered, Percent Mastered,
and Objectives Mastered Per Month

Grade	# of Students	Average # of Objectives Attempted	Average # of Objectives Mastered	% Mastered/ Attempted	Average Months of Treatment	Objectives Mastered Per Month
9	62	11.9	6.0	50%	10	.6
10	15	9.7	5.1	53%	10	.5
11	5	12.4	7.6	61%	10	.8
Total	82	11.5	5.9	51%	10	.6

Table VIII reports the results on the Criterion Referenced English Syntax Test (CREST). Overall, the program students attempted an average of 11.5 objectives per student, and mastered an average of 5.9 objectives. This represents an average of .6 objectives per student, per month (based on a 10 month instructional program). The average number of objectives mastered ranged from a low of 5.1 objectives at the tenth grade level to a high of 7.6 objectives at the eleventh grade. This corresponds to a low of .5 objectives mastered per month at the tenth grade to high of .8 objectives per month at the eleventh grade.

TABLE IX

English as a Second Language

for Spanish Language Students

Student Performance on the
Criterion Referenced English Syntax Test (CREST)
A Breakdown by Test Level and Grade.

Grade	# of Students	LEVEL I			LEVEL II			LEVEL III		
		Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered	Attempted	Mastered	Percent Mastered
9	62	427	209	49%	229	117	51%	83	46	55%
10	15	21	12	57%	106	60	57%	19	5	26%
11	5	25	15	60%	37	23	62%	-	-	-
Total	82	473	236	50%	372	200	54%	102	51	50%

Table IX presents the CREST test levels at which students were performing, by grade. Clearly, the ninth grade students were performing principally at Level I of the CREST, while tenth grade students were performing primarily at Level II. The percentage of objectives mastered versus those attempted appears to be fairly consistent at Levels I and II of the test, ranging from a low of 49% at Level I at the ninth grade to a high of 62% at Level II at the eleventh grade. The situation at Level III was somewhat different, where 55% of the ninth graders mastered the objectives attempted while only 26% of the tenth graders did so.

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TABLE X

Native Language Arts

Number and Percent of Students passing the
Teacher-Made Examinations in Native Language Arts

	Fall			Spring		
Grade	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	198	167	84%	200	139	69%
10	93	91	98%	95	82	86%
11	14	13	93%	15	14	93%
Total	305	271	89%	310	225	73%

Table X Presents the results of the testing done in Native Language Arts classes. Overall, the students were successfull in mastering the NLA curriculum, with 89% of the students mastering the course content during the Fall semester and 73% mastering the Spring course content. The percent mastering ranged from a low of 69% at the ninth grade level during the Spring to a high of 98% at the tenth grade level during the Fall.

TABLE XI

Mathematics Achievement

Significance of Mean Total Raw Score Differences
Between Inital and Final Test Scores in Mathematics on the
New York City Mathematics Test

Grade	No.	Initial Mean	Initial S.D.	Final Mean	Final S.D.	Mean Diff.	Corr. (Init	SEmd	t	p
9th	108	23.43	8.47	27.17	8.41	3.47	.743	.583	6.415	.01
10th	64	26.94	7.92	29.58	7.71	2.64	.823	.584	4.521	.01

As can be seen from the above table there was a statistically significant gain in mathematics achievement from initial to final testing. The mean gain from initial to final testing was almost three points for the tenth grade and almost four points for the ninth grade. The initial achievement was 23 for the 9th grade and almost 27 for the 10th grade. At final test time the achievement was 27 at the ninth grade and almost 30 for the tenth grade.

TABLE XII

Mathematics Achievement

Number and Percent of Students Passing the Teacher-Made Examinations in Mathematics

Grade	Fall			Spring		
	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	202	122	60%	199	83	42%
10	91	57	63%	95	49	52%
11	11	7	64%	13	7	54%
Total	304	186	61%	307	139	45%

Table XII presents the results on teacher-made tests of students enrolled in mathematics classes. Overall, 61% of the students enrolled in Fall mathematics classes passed the tests, and 45% of the students passed in the Spring semester. Although the gains demostrated on the New York City Mathematics Test were statistically significant, it appears that nearly half of the students are not performing on teacher-made tests. The percent of students passing ranged from a low of 42% at the ninth grade in the Spring to a high of 64% at the eleventh grade level in the Fall. Generally, Spring scores are lower than Fall.

TABLE XIII

Science Achievement

Number and Percent of Students Passing the Teacher-Made Examinations in Science

Grade	Fall			Spring		
	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	194	146	75%	173	104	60%
10	91	61	67%	77	55	71%
11	12	10	83%	12	8	67%
Total	297	217	73%	262	167	64%

Table XIII presents the results on teacher-made tests of students enrolled in science classes. Generally, the students were successful in mastering the science curriculum, with 73% percent mastering the curriculum in the Fall and 64% mastering the curriculum in the Spring. The percentage of students passing ranged from a low of 60% at the ninth grade level in the Spring to a high of 83% at the eleventh grade level in the Fall.

TABLE XIV

Social Studies Achievement

Number and Percent of Students Passing the Teacher-Made Examinations in Social Studies

Grade	Fall			Spring		
	N	Number Passing	Percent Passing	N	Number Passing	Percent Passing
9	199	150	75%	189	133	70%
10	94	71	76%	95	69	73%
11	14	11	79%	15	10	67%
Total	307	232	76%	299	212	71%

Table XIV presents the results on teacher-made tests of students enrolled in social studies classess. Students were generally successful in mastering the social science curriculum, with 76% percent of the students enrolled passing the Fall classess, and 71% passing the Spring classess. The percentage of students passing ranged from a low of 67% at the eleventh grade level in the Spring to a high of 79% at the eleventh grade level in the Fall.

TABLE XV

Attendance

Number and Percent of Students Surpassing the General School Attendance Rate, Reporting the Program Attendance Rate and Standard Deviation

Grade	N	Program Attendance Rate	Standard Deviation	Number Surpassing School Rate	Percent Surpassing School Rate
9	202	83.01	17.44	148	73%
10	98	86.53	16.60	82	84%
11	15	92.00	7.94	14	93%

Table XV presents the attendance rate of students enrolled in the bilingual program and compares the attendance rate of program students with the school-wide attendance rate. The vast majority of program students surpassed the general school attendance rate ranging from a low of 73% of the students at the ninth grade level to a high of 93% of the students at the eleventh grade level. The program objective of surpassing the school attendance rate was achieved at all grade levels.

Conclusions and Recommendations

The bilingual program at South Bronx High School was in its first year of funding during 1978-79. The school itself was in its second year of operation. In view of the "start up" time required to operationalize a program or a system, it would not be realistic to expect that the program would be fully functioning as proposed. Nonetheless, the bilingual staff at South Bronx High School did a commendable job at implementing the program during the first year.

Another factor may be expected to influence the implementation and operation of the program in the future. The literature supports the notion that the school principal is a major factor influencing program success. Sonia Rivera, an ardent supporter of bilingual education, has recently been appointed as principal. It will be reasonable to expect that the program will enjoy a supportive environment in the years to come, thus maximizing its potential for success.

Generally, the program was implemented as proposed. In particular, South Bronx High School was successful in coordinating available funding sources for providing a comprehensive and well articulated instructional program. The language development component, for example, reflects the complexity of the population, thus maximizing the potential for addressing the real needs of the students. The school policy of incrementally scheduling students into the school mainstream program obviates the need for rigid "exit" criteria, since the students are "evolved" into the mainstream program without the psychological effects of exiting.

A few areas, however, deserve to be mentioned as needing further development. While great strides were made in developing curriculum materials, continued and increased effort in this area should be considered. Consideration must be given to the literacy levels of the students in developing

materials in both English and Spanish, since the available information suggests that the literacy skills of the population cover a large range.

The staff training component needs to be further developed. Funds were largely lacking for staff development, and should be increased. More information needs to be collected regarding staffing patterns and staff training needs so that a responsive program may be provided.

A number of factors are at play which affect parental involvement and which are beyond the control of the program. (These were mentioned previously in this report.) However, there is little doubt that the educational benefits of the students will be best served by increased and systematic participation of parents in the program. Efforts should be made to reach out to the community through the employment of a family assistant and by contacting the home at times other than when problems arise. Consideration should be given to such efforts as child-care arrangements at the school during scheduled parental activities. These efforts, however, may be costly and will require fiscal support. Ancillary activities, such as helping parents with health and landlord problems, for example, should be continued.

The cultural and extracurricular activities provided and supported by the program are worthy of recognition. They attest to the positive climate created by the program and supportive attitude of the students. These activities should be supported and expanded so that more students and community members may benefit from the experiences.

The evaluation activities and approaches need to be modified to reflect the complexity and effect of the program. In particular, the assessment instruments presently in use may be questionable for the population. For example, a correlation coefficient of .57 between pre- and post-tests for students with matched scores on the New York City Reading Test suggests that

the test is unreliable when used with this population and, therefore, may not be adequately reflecting the effect that the program is having on student learning. A testing program which respects the complexity of the curricular program is essential if a true index of program effect on student learning is to be derived. While the testing outcomes were positive and statistically significant, caution must be exercised in their interpretation. (See section on "Findings".)

In conclusion it is the opinion of the evaluators that the program was successfully implemented, demonstrated positive effects on the students, has the potential of becoming an outstanding program as it matures, and should be fiscally supported and expanded.